

# Mono Pumps Computer Aided Solar Simulation

<b>Quotation Number</b>	EX-001
<b>System Type</b>	Sun Sub
<b>System Size [w]</b>	350
<b>Array Type</b>	Tracking
<b>Country</b>	United Kingdom
<b>Location</b>	PENZANCE
<b>Latitude</b>	50.10
<b>Longitude</b>	-5.30
<b>Array Tilt Angle</b>	50
<b>Static Head [m]</b>	35
<b>Pipe Length [m]</b>	40
<b>Pipe Size</b>	32mm Metric Class 12.5
<b>Cable Length [m]</b>	40
<b>Cable Size [mm]</b>	2.50
<b>Water Temp [deg C]</b>	25
<b>% of Max Flow</b>	100.0 %
<b>MPPT Size</b>	Series 1000 SMC
<b>Motor Size</b>	Series 1000
<b>Pump Size</b>	SM041
<b>Drive Ratio</b>	1.0
<b>System Part Number</b>	SS0350MA045T3

Typical Performance at 1000W/m <sup>2</sup>	
Flow [L/min]	33.9
Friction Head [m]	3.4
Total Head [m]	38.4
Pump Speed	2635
Pump Efficiency	91%
Motor Efficiency	80%
Cable Loss	1%
System Efficiency	70%

Month	Daily Flow [m <sup>3</sup> /day]	Horizontal Irradiation
January	1.9	0.6
February	5.4	1.4
March	9.2	2.6
April	13.6	4.2
May	14.5	4.9
June	16.2	5.6
July	13.7	4.8
August	11.8	4.0
September	9.4	2.9
October	6.6	1.7
November	3.9	0.9
December	1.7	0.5
<b>Average</b>	<b>9.0</b>	<b>2.8</b>

## Notes

Solar Example, 350w Borehole

